"Digital Decimation Filter"

ABSTRACT OF THE DISCLOSURE

[0063]   A digital decimation filter with programmable frequency notches is disclosed. The digital decimation filter performs integration, differentiation, and scaling to produce a filtered output signal. The differentiation is preformed by a programmable counter. The filter has a control unit that controls the behavior of the filter. The control unit has registers to contain the values of the frequency notches of the filter. The control unit activates the differentiator based on the value of the frequency notches in order to achieve filtration. The scaling unit uses a register, a bit shifter, and an adder to minimize complexity. The digital decimation filter provides high rejection with low complexity.